

signs of irritation in the colon, and more especially when there is tenesmus, an anodyne enema acts like a charm.

"Dr. Warde, to whom I have before alluded, speaks of salines as being suited to the treatment of fever of the typhoid type. Such may answer in London; but with us in Dublin they would be positively injurious. Their effects on the healthy frame are quite too powerful to suppose that they would not act equally so on the frame weakened by a disease like fever; of which the best treatment now avowedly is, what may be called, conservative. To the class of salines I would add the carbonate of ammonia, which I believe to be too indiscriminately used; and which, in my own experience, does not suit the type of fever of which I am speaking. I have known a very few doses of it bring on diarrhoea; not only in this fever, but in many other diseases; and, if my memory serve me right, I have seen a similar remark made by Sir Benjamin Brodie; and would hence hold out a warning against the use of either salines or alkalies in all diseases of a lowering type.

"There is a class of cases of the typhoid fever in which, without any interference, the diarrhoea suddenly ceases; whilst the chest, or it may be the brain, gets as suddenly involved. All such I have found turn out most critical, and I have latterly been in the habit of keeping up, for some days, a discharge from a small blister, usually put on the chest. In this way I think I have seen very beneficial results follow. It seemed as if the poison were, in part at least, got rid of by the system; and all went smoothly afterwards. The point, I believe, is worth bearing in mind, and so is mentioned.

"In the last place I would notice a point which was also spoken of on a former occasion. Are stimulants, as a class, used too indiscriminately? I think they are. It seems a very general impression that if they are to be used, it matters little of what kind they are; hence, brandy, wine, and beef tea, are constantly spoken of as being given to the same patient. Now I do not deny that all may be required at the same time. But I do say that in numerous instances judgment is to be exercised; for most assuredly the effects are not the same; and when their different composition is considered this need not excite wonder. Thus, if we compare wine and beef tea, the former, contrary to what might at first be thought, may be given with much less risk than the latter; and I am sure I have seen cases where secondary inflammations—in the chest amongst other parts—have been lighted up by want of attention to the very point of which I speak. Though much more might be said on this subject, enough has been advanced for my present purpose.

"In conclusion, I would observe, that the class of mixed cases, as they may be well called, require even more than the ordinary amount of attention. The fever becomes so heavy in many of them that the abdominal symptoms are very apt to be masked, and so may readily be overlooked. In such cases, too, it may be requisite to direct our treatment at one time to the chest, or again, to the brain; and, in some of the cases given, a combined treatment had to be adopted."

15. *Epidemic of Typhus in Iceland*.—Dr. JOHN HJALTELIN gives (*Ed. Med. Journ.*, Sept. 1862) a very interesting account of a dreadful epidemic of typhus, which began in the northern part of the island of Iceland during the winter of 1857–58, and was thence apparently communicated by contagion to the eastern, western, and southern districts of the country. During the winter of 1857, about ninety cases of this fever came under Dr. H.'s observation, and it presented sometimes the character of exanthematous typhus, and sometimes of typhoid or "typhus abdominalis;" but although the sickness abated in the following summer, it again appeared in the autumn of 1858, and raged during the whole winter of 1859, and did not even cease in the summer months of that year, but continued its ravages through all the seasons of 1859 and 1860. In those two years no less than 900 cases came under Dr. H.'s treatment, out of a population of about 10,000 inhabitants, although of this number there were many patients that he had no time to register. When the fever broke out in a farm or cottage, it generally attacked one person after the other, until most of the inmates of the house were infected; and it very often happened that strangers

stopping in a house thus infected, contracted the disease. It was evident, therefore, that it was highly contagious.

In the beginning of 1860, the same fever was very often accompanied by malignant dysentery; and at this time also, when by far the greater number of the infected were suffering from typhoid fever, Asiatic cholera made its appearance, and was accompanied by rice-water evacuations and cramps, but happily, it was only sporadic, and did not spread by contagion. During the last winter, 1860-61, the typhus fever was decreasing, although it still displayed its former malignity, and was attended, especially in the eastern part of this country, by great mortality. In some parishes of this part of Iceland, one-tenth of the inhabitants fell victims to the disease, a catastrophe which seems attributable to there having been an entire deficiency of medical men, and medical aid. The same phenomenon was observed in many other parts of the country, affording a strong argument against those who are of opinion that medical aid has very small influence on the mortality of malignant fevers.

In the last winter mentioned, about 122 cases of typhus and typhoid fever came under Dr. H.'s treatment, and although the disease was becoming more and more sporadic, it still preserved the same characters of malignity and contagion as it had shown in former years. In the beginning of the spring, cases of malignant cholera seemed to gain ground, and were generally more common than the typhus itself, but the disease did not spread, and was limited to some fishermen's huts.

As to the probable causes of these malignant diseases, Dr. H. states, that in the years 1856-57, an epizootic—common sheep scab—visited Iceland, and it was determined to get rid of this epizootic by slaughtering all the infected sheep, which was done in spite of Dr. H.'s remonstrances and predictions of the evils which would follow. No less than 200,000 sheep, many of them quite sound, fell victims.

Dr. H. had foretold, he says, "that this proceeding would most likely lead to fearful consequences, especially on account of the great masses of meat heaped together in the small storehouses that are commonly attached to the Icelandic farm, the single apartment of which is used as a parlour, dining-room, and bedroom. I supposed—and experience showed that I was right—that my countrymen's uncleanness, and their bad method of salting meat, would lead to the most dangerous consequences; and that so protracted a deprivation of sheep-milk, butter, and cheese, might not only be attended by a deficiency of healthy and nourishing diet, but also give rise to famine.

"The sheep killed amounted in number to about one-third part of those contained in the island, and were intended to supply twelve months' nourishment to about 10,000 men. So convinced was I of the injurious consequences of this foolish enterprise that I wrote to the Board of the Sanitary College at Copenhagen, predicting what would happen if the sheriffs of this country—who were its authors and executors—were not to be deterred from its prosecution. The Danish government upon this enjoined them to desist; the order, however, arrived too late, the slaughter having been already executed during the autumn of 1857, and the following winter.

"Meantime, my predictions were realized. People coming from the country where large stores of salt provisions existed in great abundance, informed me that the odour of rotten meat was in many houses insupportable; they declared that they could neither stay nor sleep in them, and a short time afterwards I heard that typhus and typhoid fever had broken out in several parishes of the north, and both these diseases were subsequently extended by contagion to the southern districts.

"During the winter the peasants came down from the highland districts to the fishing places near Reykjavik, and the surrounding districts. In many of these persons the malady already existed in its latent form. On arrival, they sickened and spread the fever in the fisher cabins, which were the more susceptible to its influence, as they had been overcrowded during the winter of 1858. From this time the disease advanced from hut to hut, until the majority of them were infected by its virulence; the most crowded huts were of course infected first and most severely; but by and by the better houses became infected also, towards

the end of the winter of 1858. The mercury sank to 4° below zero, Fahrenheit, and continued there for several weeks. It was very remarkable to see how the typhus was for a time arrested by the severe cold, but re-excited when the temperature grew milder. This fresh outbreak continued until the end of May, at which period it ceased or abated, to reappear in autumn."

16. *Disinfecting Treatment of Typhus and Typhoid Fever.*—Dr. JOHN HJALTELIN gives the following as the indications for his disinfecting treatment of typhus and typhoid fever, and which he employed with advantage in the terrible epidemic which prevailed in Iceland from 1857 to 1860. These are:—

"1st. To prevent overcrowding in the farm-huts and cabins as far as possible, where this in any way could be done.

"2d. To have the windows thrown open as often as the season would allow it, and make holes for ventilation where this could be most effectually done for purifying the air.

"3d. To destroy every offensive odour about the sick, and even the smell of the sickness itself.

"4th. To introduce cleanliness in every respect.

"5th. To clean the bowels of the patients as soon as possible in an effective and perfect manner.

"6th. To destroy instantly the odour of evacuations from the patients.

"7th. To use internally disinfecting medicines in a bold and consequent manner.

"8th. To support the strength of the patients by easily digestible but nourishing foods.

"The first indication could very seldom be fulfilled, but it was done whenever possible. The second indication was for the most part tolerably executed, especially when the people got afraid of the contagion, and therefore dared not shut their windows, but followed for the most my advice in opening them.

"The third indication was, after the lapse of some time, when the people had seen the good effect of it, boldly executed; and the remedies applied to this purpose were the aforesaid disinfecting compounds, viz., chlorine-gas, Sir William Burnett's chloride of zinc solution, iodoform, and charcoal.

"The fourth indication met with many obstacles, and could seldom, on account of bad habits or poverty, be executed as it ought to have been, or would have been, if cleanliness were a more common virtue in this country.

"The fifth indication was fulfilled by administering a full dose of calomel, sulphate of magnesia, or sulphate of soda, all in large and repeated doses, according to age and other circumstances. The calomel was generally given in a dose of ten to twenty grains every day, or every second day, until the fetid odour of the dejections was gone. As the effect of this treatment, I may mention the lessened tenderness in the right iliac region and in the whole abdomen, lowering of the pulse, diminished headache, and more clear consciousness of the mind, when from the beginning there had been stupor or coma. In some cases sulphate of magnesia was given in a dose of a half or one ounce, until I was pretty sure of the bowels being well cleaned, and all bad odour of the evacuations had disappeared.

"In order to execute the sixth indication, sulphate of iron was generally put into the water-closets before they were used; but, in some cases, chloride of lime was used for the same purpose. By these disinfecting compounds no odour of the dejections could be felt, although the patients had very large and noxious-smelling evacuations. I think that every one who knows the small and dirty Icelandic huts will agree with me that this is a quite indispensable proceeding to purify the air, where many patients are crowded together in small rooms. This method seldom failed to produce a happy effect upon the patients. The seventh indication was executed in several manners. If the patients were supposed to have strong and healthy respiratory systems, they were made to inhale iodoform or chlorine gas mixed with the air. The former remedy was most frequently used, and the good effect of it (according to my experience) is undeniable. It was in some instances given internally, dissolved in ether, and seemed